Balance Sheet of Business

"What, in six words, is the general condition of business?" This is doubtless a legitimate question,—perhaps easier to answer for oneself in one word than in six. However, the basis for an answer is suggested in the following summary which reflects the views of a large number of business men on or about August first.

RESOURCES	LIABILITIES
CROP YIELD *Average or better except cotton*	VOLUME OF BUSINESS *Average reported one-third below '20*
PRICES *Increasing stabilization of general price level*	PRICES *Some too high, others too low in relation to general level*
MONEY RATES *Commercial paper rates lower* *Capital terms easing*	TAXATION *High rate* *Uncertainty*
WAGE RATES *Reduced—downward tendency*	LABOR COSTS *Too high in relation to output*
BANK RESERVES *Stronger*	MANAGEMENT *Waste*
BUSINESS FAILURES *Tendency to decline*	BUSINESS FAILURES *Still too numerous*
STOCKS OF MERCHANDISE *Reported seasonally small except in particular lines*	FOREIGN TRADE *Reduction in exports* *Maladjustments of business at home and abroad* *Dislocation of exchange rates* *European fiscal policies* *International jealousies*
TRANSPORTATION *More efficient* *Government settlement promised*	TRANSPORTATION *Rates too high* *Uncertainty*
RAW MATERIALS *Plentiful*	TARIFF *Unsettlement*
PSYCHOLOGY *Self-delusion reduced*	GOVERNMENT POLICY *Too much government in business*

The Meaning and Manner of Business Revival

Complementary Facts and Findings

By THE EDITOR-IN-CHARGE

WHOEVER thinks that business revival means the return of such profits as accompanied the rise of prices from October, 1915 to May, 1920, is destined to disappointment, if not grief. It can be assumed that any revival of business in the United States will be worked out under a capitalistic

order and that the institution of private property will underlie the processes of producing and apportioning the national income. The mandate of the last presidential election and the weakened position of Bolshevism are sufficient warrant for such an assumption. But assuming a continuation of the capitalistic order is very different from assuming a return of war orders for American goods.

THE MEANING OF BUSINESS REVIVAL

To those who think in terms of credit cycles, business revival means the beginning of a long swing movement of business expansion. Though day to day fluctuations in business deserve noting, as do seasonal changes, the revival of business means, rather, the beginning of a distinct phase of a credit cycle which requires several years to work out.

The earmarks of the expansion phase of a credit cycle are familiar. Prices rise. Expenses do not keep pace with the rise in commodity prices. Business is therefore profitable. Encouraged by larger profits, business men increase bank loans. They add to buildings and equipment. They get their businesses into an unliquid condition. But for the time, business is good.

The contraction phase of the credit cycle is all too familiar. Expansion cannot go on indefinitely. Bankers are forced to refuse or discourage loans in order that reserves may not be impaired. Many business men, expecting to renew loans, find that they cannot do so. They are required to begin liquidating their obligations. For those who cannot borrow or liquidate, bankruptcy is the next step. A reaction from good times is earmarked by falling prices. Expenses lag behind prices; profits decrease and inventories disclose losses. Unemployment comes. Business is depressed. With smaller profit comes a contraction in ambitions for new ventures and activities. There is difficulty in borrowing, reluctance to make commitments and greater care in management.

In the past business contraction has been self-limiting. With a reduction in loans and consequent increase of reserves, banks were led to make terms easier. Efficient concerns built up a new credit structure. Gradually borrowers became ready for new activities. Failures declined and employment picked up. Prices became more stable and foreseeable. They even began to rise. Business became profitable. This is a description of what has happened when American business has revived after depressions of the past. It is the situation that is usually indicated by those who look forward to the revival of American business. However, to those who think of business revival as involving something more than the immediate situation, that is, the fundamental causes of business activity and national prosperity, this volume, in spots at least, may be suggestive.

REVIVAL PREDICTIONS ARE HAZARDOUS

What business revival means is reasonably well understood. Interest centers rather about the time when revival is to come. Business revival does not shoot up over night. It is therefore necessary to serve notice that the editor-in-charge has made no attempt to conduct a soothsaying department, particularly as manuscripts were sought over two months before the release date of this volume. Soothsaying is hazardous.

If business revival were now a matter of history's repeating itself with mathematical accuracy, a statistical chart would be more serviceable than pages of discussion. Statisticians have predicted the time of business revival.

The Review of Economic Statistics, published by the Harvard University Committee on Economic Research, stated on October 25, 1920, "We conclude that the liquidation in commodity markets will come to an end about ten months from last June, the month when interest rates reached their peak, or by April, 1921." In the January 25, 1921 number the *Review* began to hedge. As late as April 25, 1921, the *Review* stated that "the movements for March of the curves of our index chart give us grounds for believing that the period of general declines of business and commodity prices may be near its end." By May 25, however, the *Review* concluded that "there is nothing in the latest movements of the three curves to indicate how soon the final readjustments will come to an end. This will depend principally on the movements of Curve C, rates of commercial paper, or rather on the conditions which these rates reflect."

The appointed time for business revival has come and gone. The business situation is still spotted (in August). Something is wrong. The statistics used are as reliable as any available. But a monkey-wrench has been thrown into the statistical machinery. Call it the unpredictable new factors growing out of the war, the "vagaries of the social mind," the operation of the Federal Reserve System or anything else—the fact remains that new factors or new combinations of factors, or both, have upset the assumption of history's repeating itself with the mathematical certainty that makes prediction possible.

STATISTICAL DATA NOT TO BE DISCARDED ENTIRELY

Though statistical forecasting of business revival is almost as dangerous as playing "hunches," statistics do show trends of development and are not to be discarded entirely. Just as the control of big business is a statistical control, so too must anything more than a "feeling" about business trends be based on the widest possible observations. Such observations are statistical. The trend of data on wholesale and retail prices, interest rates, money rates, security values, foreign exchange, imports and exports, railway tonnage, business failures, unemployment, wage scales, bank reserves and clearings are still to be noted and interpreted.

That the drop in prices has been world wide is shown in Table IV, page x. It is a hopeful sign that the fall in the general level of prices in the United States is slowing down.[1] It will be a still more hopeful sign when the index numbers of particular classes of commodity prices show less spread from the "all commodity" index number. Then one of the most important harbingers of business revival will have come. Diminution of spread will mean that the relation of businesses to one another is approaching, or has reached, an equilibrium. The actual trend of wholesale prices, up to press time, can be noted in Table I following.

Retail prices always lag behind a drop in wholesale prices. They are of interest chiefly in connection with the cost of living.[2] The figures on page viii are therefore of interest. Food constitutes a very large percentage of the

[1] The index numbers published by commercial reporting agencies for July show a slight increase. The Bureau of Labor Statistics' all commodity index number of wholesale prices was 148 for July, showing no change as compared with the June number. It seems safe, therefore, to say that a pause at least has come in price recession in the United States. Newspaper reports show that the same situation obtains in Britain.

[2] Changes in cost of living in the United States from June and December, 1920 to May, 1921 are detailed in the July, 1921 number of the *Monthly Labor Review*, page 105 ff.

TABLE I

INDEX NUMBERS OF WHOLESALE PRICES, BY GROUPS OF COMMODITIES (1913 EQUALS 100)

	1917	1921						1920							
	*Jan.**	*June*	*May*	*April*	*March*	*Feb.*	*Jan.*	*Dec.*	*Nov.*	*Oct.*	*Sept.*	*Aug.*	*July*	*June*	*May*
Farm products	148	113	117	115	125	129	136	144	165	182	210	222	236	243	244
Food, etc.	150	132	133	141	150	150	162	172	195	204	223	235	268	279	287
Cloths and clothing	161	180	181	186	192	198	208	220	234	257	278	299	317	335	347
Fuel and lighting	176	187	194	199	207	218	228	236	258	282	284	268	252	246	235
Metals and metal products	183	132	138	138	139	146	152	157	170	184	192	193	191	190	193
Building materials	106	202	202	203	208	221	239	266	274	313	318	328	333	337	341
Chemicals and drugs	159	166	166	168	171	178	182	188	207	216	222	216	217	218	215
House furnishing goods	132	250	262	274	275	277	283	346	369	371	371	363	362	362	339
Miscellaneous	138	150	151	154	167	180	190	205	220	229	239	240	243	247	246
All commodities	151	148	151	154	162	167	177	189	207	225	242	250	262	269	272

Compiled by the Bureau of Labor Statistics.

* The January, 1917 index numbers are shown because the all commodity index number for that month is nearest the all commodity index number for June and July of 1921. A comparison of the group index numbers for January, 1917 and June, 1921 is enlightening. It will be recalled that the sharp rise in the price level began in October, 1915, and that the peak was reached in May, 1920. The June all commodity index number [148] shows a 45.5% decline from the peak. The July all-commodity index number was also 148.

TABLE II

	Index numbers of wholesale prices all commodities	Index numbers of retail prices of the twenty-two principal articles of food in the United States; all articles combined
1920		
May	272 [Peak]	215
June	269	219 [Peak]
July	262	219 [Peak]
August	250	207
September	242	203
October	225	198
November	207	193
December	189	178
1921		
January	177	172
February	167	158
March	162	156
April	154	152
May	151	145
June	148	144
	45.5% decline from peak	34.2% decline from peak

Compiled by the Bureau of Labor Statistics.

family expenditures of most wage earners' families.

The trend of commercial paper rates is regarded by statisticians as one of the most significant of the indices of business revival. Commercial paper rates, at the time of writing, stood as indicated below.

Foreign exchange rates are likely to be governed chiefly by price levels ruling in different countries. The parity of exchange is likely to be a

TABLE III

	Rate on four-to-six months paper (Units of one per cent)		Rate on sixty-to-ninety day paper (Units of one per cent)	
	1920	1921	1920	1921
January	6.06	7.94	6.00	7.81
February	6.53	7.88	6.41	7.75
March	6.88	7.75	6.68	7.62
April	6.97	7.72	6.81	7.56
May	7.38	7.15	7.16	6.92
June	7.95	7.03	7.72	6.69
July	8.09	....	7.84	....
August	8.25	....	8.00	....
September	8.16	....	7.97	....
October	8.12	....	8.00	....
November	8.08	....	7.92	....
December	8.00	....	7.88	....

Harvard Economic Review, June 25, 1921, p. 139.

TABLE IV. PROCESS OF DEFLATION IN PRINCIPAL COUNTRIES

	United States: Bureau of Labor Stat.; 328 commodities (variable)	Canada: Dept. of Labor; 272 commodities (variable)	United Kingdom: Economist; 44 commodities	France: Statistique Generale; 45 commodities	Italy: Riccardo Bachi; 38 commodities until end of 1919; thereafter 76 commodities	Netherlands: Central Bureau voor de Statistick; 49 commodities	Sweden: Svensk Handelstidnings; 47 commodities	Australia: Bureau of Census and Statistics; 92 commodities	New Zealand: Census and Statistics Office; 140 commodities
1920									
January	248	250	288	487	508	293	319	203	190
February	249	254	303	522	557	289	342	206	194
March	253	258	310*	554	602	290	354	209	202
April	265	261	306	588*	664	296	354	217	205
May	272*	263*	304	550	660	297	361	225	206
June	269	258	291	493	632	297	366*	233	205
July	262	256	292	496	604	301*	364	234	215
August	250	244	288	501	625	289	365	236*	215
September	242	241	284	526	655	288	362	230	216
October	225	234	266	502	659	283	346	215	218*
November	207	225	245	460	670*	261	331	208	214
December	189	214	220	435	655	233	299	197	214
1921									
January	177	208	209	407	642	213	267	196	212
February	167	199	192	376	613	201	250	192	...
March	162	194	189	360	604	...	237	181	...
Percentage of decline from peak	40.4	26.2	39.03	38.7	9.85	33.2	35.2	23.3	2.75

This table is taken from the *Monthly Labor Review*, June, 1921, p. 43.
* Peak.

purchasing power parity rather than the old mint par.[3] Table IV is therefore of interest as bearing on exchange rates. It shows that the process of deflation in the principal countries has gone farthest in the United States and next farthest in the United Kingdom. In France and Italy prices were still fearfully high in March.[4]

Imports and exports, railway tonnage, wage changes, bank reserves and clearings appear in the newspapers and other generally read publications with such regularity as to make it unnecessary to cite these statistics here. Information on the trend of security values is likewise a matter of daily reading. One warning, however, is in point—that the frequency of reports on security values may obscure a view of the longer swings of the market. Securities will, of course, appreciate in value with a lowering of interest rates and a cessation of dividend passing. That is, a rise in security values is a mark of business revival.

The trend of business failures reported is worth marking carefully, even though not all of the "lame ducks" have been caught up in such a tabulation as the following—thanks largely to the unremitting efforts of the banks. There is a tendency for the number of failures to decline. This is hopeful. But the monthly mortality is still too high to warrant enthusiasm.

TABLE V

	Business Failures Bradstreet (Units of one failure)	
	1920	*1921*
January	503	1998
February	434	1436
March	505	1506
April	474	1446
May	453	1338
June	571	1329
July	593	1444[5]
August	633	....
September	654	....
October	856	....
November	1056	....
December	1731	....

Harvard Economic Review, June 25, 1921.

When all or most of the statistics discussed in this section give evidence of improvement, then any business man can assure himself—and with a small margin of probable error—that business revival is foreseeable, if not at hand.

THE TWO VIEWS AS TO THE RELATION OF FOREIGN TRADE TO BUSINESS REVIVAL

It is not uncommon to hear that the decline in the export trade of the United States has been the chief cause of the recent business depression and that the way to business revival lies in the resuscitation of exports—with a pulmotor if necessary. Proponents of the Hundred Million Dollar Foreign Trade Financing Corporation have been particularly definite in uttering this opinion. It is urged that American goods—particularly equipment and raw materials —must be sent to Europe to relieve the American market and to assist European nations to "come back." It is contended that "failure, distress and disaster there will mean failure, distress and disaster here." Generalizations about the importance of exporting to Europe are too well advertised in public prints to require repetition.

[3] For a discussion of this point see paper in this volume by George M. Reynolds and particularly the mathematical calculations in an article by Henry A. E. Chandler in the May, 1921 number of *Commerce Monthly*—published by the National Bank of Commerce in New York—which is entitled "Discussion of Some Fundamental Factors in Foreign Exchange Fluctuations."

[4] Newspaper reports as to price changes in foreign countries as of July, 1921 show material reductions, but the relative positions of the United States, Britain, France and Italy remain unchanged.

[5] Newspaper report by Bradstreet.

They have been urged so often that their authors and some part of the general public seem to believe them implicitly.

Enthusiasts have woven into plans for the development of foreign trade a charming pattern of romance, which seems to be colored with illusions as to its quantity and delusions as to its importance. Therefore, it cannot distort the perspective of business men to state another view point or to emphasize the hard and particular facts about the foreign trade of the United States.

In an address that has aroused such wide-spread attention as to justify its inclusion in this volume,[6] Mr. George M. Reynolds has stated certain propositions which seem often to have been overlooked. Admitting that foreign trade for the United States is both necessary and desirable, he points out:

(1) That this trade is likely to be governed by American needs for particular imports, and by particular advantages in the production of certain classes of goods for export;

(2) That more emphasis has been placed on what the United States can do for Europe than on what European countries can and must do for themselves;

(3) That the export of American capital must be considered not only in relation to Europe's needs but also in relation to America's needs.[7]

(4) That export trade constitutes, after all, only a small percentage of the total volume of American commerce[8];

(5) That if it were necessary for the revival of American business to wait upon the rehabilitation of Europe, revival might have to wait a long time;

(6) That the key to business revival lies rather in the domestic market than in attempts to perpetuate abnormal exports such as obtained during the period 1915–1920.

NATURAL TRENDS OF FOREIGN TRADE

"Normalcy" is a relative term. But the foreign trade of the United States during the calendar years 1915–1920 was certainly abnormal if related to foreign trade before the war. What a more normal foreign trade will mean in the years that are ahead cannot be predicted with precision—there are too many variables for mathematical accuracy of statement. The effect of the Reparations Settlement, the extent to which Europeans will deflate their currencies, work, save, and abandon imperialistic cravings are among the variables. However, to the extent that political policies permit—whether those policies are European, Far Eastern, or relate to such a question as the tariff, whose schedules are likely to be settled as usual by log-rolling and as local issues—it seems safe to predict that more normal foreign trade for the United States will be somewhat like that during the period 1900–1913. At any rate, the suggestive qualities of a paper entitled "American Trends in Foreign Trade" amply justify its publication. Factual correctives for loose generalizations are needed medicine.

THE REPARATIONS SETTLEMENT AND ITS EFFECT ON BUSINESS REVIVAL

One of the most serious of the disturbing elements in the world-wide

[6] "Capital—Shall We Export It or Use It for American Business?"

[7] Professor Friday's statement in his article in this volume that "the necessity of exporting capital to keep foreign trade going and thus the wheels of industry turning, seems to me to be much exaggerated," is distinctly in line with Mr. Reynolds' view. Mr. Hartley Withers, Editor of the *London Economist*, recently expressed views of a similar nature.

[8] Professor Friday notes in his article that "the average income per man, woman and child in this country is only about $500 per annum. Even a college professor's family can consume more than that!" This is a rather nice implication of the expansibility of the domestic market.

business situation is recognized to be the Reparations Settlement. Unfortunately the Reparations Settlement is not settled. It is not even understood by many business men. The ingenuity of a New York lawyer or the intensive study of a specialist on foreign policies is required for an intelligible statement of what the Peace Treaty and the Reparations Settlement really involve. Mr. McDonald has given a simple statement of the facts of the Settlement that should be appreciated by the circle of *Annals* readers. It is hard to escape his reasoning that eventually one of two courses of action is likely, either the enforcement of the military sanctions and the break-up of the German Empire, or such revision of the Reparations Settlement as will permit unhampered or less restricted trade development.

It is quite certain that the revival of American business is affected by the so-called Settlement and until it contains less of uncertainty as to its effect, that revival must be somewhat retarded. The Reparations Settlement is at least one of the grays in a spotted business situation.

WANTED—A NEW ECONOMY FOR THE UNITED STATES

That England has been the great creditor nation for decades is a known fact. That Britain has exercised a major control over world trade for more than two centuries is likewise common knowledge. Within half a decade or less the United States has become a creditor nation. Within that fractional part of a century the hope, at least, has been entertained in some quarters that the United States will succeed to the control of world markets. Can a nation—even one obsessed by the ideals of speed and size—set out to control international trade, or is such control determined by geography and other realities? Enthusiasm must sometimes be tempered by realism. History gives perspective, if not balance.

The influences that determined Britain's trading preëminence are known—and usually forgotten. The converging forces enumerated by Mr. Wagel[9] did not develop in a day or decade. Their enumeration constitutes a check-list for contrasting British and American trends of development. Britain's empire is abroad; America's is at home.

The Revolution gave the colonists political but not economic independence. Until the War of 1812, the volume and trend of American trade remained substantially the same as before the Revolution—almost wholly with England. But during the period 1815–30, the "American System" was emphasized and internal development begun. The United States lost its control over shipping to Britain in the sixties, not only because of the latter's iron boats propelled by steam, but also because riches lay in home industry and home markets.

With the settlement of the continent, the rise of large scale production and of cities, a new impetus was given to the export of commodities other than breadstuffs, cotton, meat and meat products, which were the ranking exports during the period 1860–1900. Domestic exports of manufactured goods comprised only twelve per cent of the total exports of the country in 1880 and thirty-one per cent in 1900. Iron and steel manufactures came into fourth place among American exports in the latter part of the nineteenth century. America's greatest foreign market was the United Kingdom. America's greatest market was at home.

During the period 1900–1913, the foreign trade of the United States grew

[9] "Great Britain's Control over International Markets."

tremendously. Annual exports increased in value from less than half a billion to nearly two and a half billion dollars. In 1913, the total volume of foreign trade amounted to $4,276,000,000. This was a big increase even considering the rising price level. Favorable trade balances, which had become a regular feature during the period 1860–1900, increased greatly, though fluctuating widely. In 1913 the favorable balance of trade amounted to $692,421,000. This was a huge sum, but paltry as compared with recent balances or as compared with the total volume of domestic sales at that time. It is significant also that the rise in the exportation of manufactured goods tended to bring America into conflict with the manufacturing countries of Western Europe, both in those countries and in the new markets which the United States was trying to develop. The struggle for foreign markets really began just a few years before the war.

Foreign trade figures during the period 1914–1920 rose to such size that the four billion dollar favorable balance of 1919 caused no gasping for breath. Americans had acquired the habit of regarding billions of dollars with equanimity, if not comprehension. What did it matter if the price level had sky-rocketed? Business men were interested in values rather than in quantities of goods—values measured in billions of dollars. The statistics and trends of pre-war export trade apparently were forgot. Foreign trade thinking was almost solely in terms of exports—not exports *and* imports *and* tariffs, indemnity payments, depreciated exchange, falling prices, business depression and embarrassed European governments.

So great has been the export obsession that recent statements emphasizing the fact that export sales constituted only some six to eight per cent of the total volume of sales, domestic and foreign, during the period of maximum exports, have aroused wonder, if not antagonism.

In contrasting the fundamental importance of foreign trade for Britain with the relatively minor importance of foreign, particularly export, trade of the United States, it may not be amiss to examine the cited percentages. The "total national product" for 1917 was estimated in dollars at 65,515,000,000 by Professor David Friday.[10] The Hon. A. C. Miller, of the Federal Reserve Board, put the industrial and business income of the people of the United States for the year 1917 at "close to fifty billions of dollars."[11] B. M. Anderson, Jr., estimated the national income for 1917 at $68,000,000,000 in an article for the New York Times' *Annalist*, January, 1918. The total exports of merchandise for the year 1917 amounted to $6,233,512,597. This export figure is slightly more than ten per cent of the national income as estimated by A. C. Miller, a little over nine per cent of the national income as estimated by David Friday and just about nine per cent of the national income as estimated by B. M. Anderson, Jr.

The national income is different from the total volume of sales. The turnover of goods is difficult, if not impossible, to estimate. But certainly the total volume of sales of the nation would be considerably greater than the total volume of goods produced, even though some kinds of goods—certain farm products and the domestic service of wives, for example—never get to market. In *Moody's Investors' Service* for February 24, 1921, an interesting estimate puts the total volume of *sales*, do-

[10] *Journal of Political Economy*, December, 1918; article beginning p. 952.

[11] January, 1918, number of *The Annals;* paper entitled, "War Finance and Inflation."

mestic and foreign, at $97,500,000,000 for 1920. The article concludes: "According to these figures, our average exports for the past three years were equivalent to only about $7\frac{1}{2}$ per cent of our total sales, while for the maximum year they were equivalent to $8\frac{1}{3}$ per cent."

The upshot of this whole matter is that a difference of one or two per cent is not important. If exports constitute only from seven to ten per cent of total sales, the relative importance of domestic and foreign trade is very different for Britain and the United States.

If the factors that gave Britain her control of world markets and determined the importance of foreign trade and foreign financing for her are not operative to the same degree in the United States, thought had better be taken of the proper place of foreign trade in the American economic scheme, of more normal trends of foreign trade than those during the period 1914–20. If an American economy is desirable or inevitable, more attention likewise may be given to the economic tenets, for instance, of Simon N. Patten and less to straight British theory. Economic doctrines must square with the determinants of economic life. The British doctrines do. Do ours?

BUSINESS COSTS AND TRADE REVIVAL

The proposition has been advanced that the key to business revival lies in the domestic market and in a more normal export trade. This proposition has at least two corollaries. Stabilized prices seem to be needed before a resumption of anything more than hand to mouth buying can be expected. The drop in prices, even when checked, makes a reduction in costs imperative, if business is to be profitable. The costs of capital, labor and government must all be cut. Waste of all kinds must be reduced, if not eliminated. The second section of this volume bears particularly on the reduction of costs. The general problem is one of better informed and scientifically ordered management, even in government. Costs do not reduce themselves.

THE PRICE AND COST OF CAPITAL

Professor Friday's prediction[12] that money rates and interest rates are to be appreciably lower within the foreseeable future is supported by facts and cogent reasoning. It should be a source of distinct comfort to business men hoping for lowered costs of production. However, they must not forget that unwise use of capital is the leading cause of business failure. Capital costs are not dependent solely on interest rates. Ill-considered ventures, imprudent extensions, improper types of equipment, surplusage of machinery, and other unwise uses of capital may more than offset a lowered price of capital. Capital costs are really to be reckoned in relation to other costs and in relation to output.

If Professor Friday's prediction is at all vulnerable, the weakness may lie in his brief analysis of the supply influences affecting interest rates[13] possibly an under-estimate of the demand or capital. But any difference of opinion regarding the probable trend of interest rates is likely to be chiefly a difference as to the time and extent of the decline.

WAGE SCALES AND LABOR COSTS

So much has been said about the reduction of wages as a means of reducing costs of production that fur-

[12] "The Probable Trend of Interest Rates."

[13] Compare that section of Mr. Reynolds' article headed, "Savings Not Indefinitely Elastic."

TABLE VI

INDEX NUMBERS OF WAGES PER HOUR, 1840–1920

Prepared by the Bureau of Labor Statistics from incomplete available sources. This table affords a comparison of wage changes incident to the Civil War and the recent great conflict

(1913 equals 100)

Year	Index Number	Year	Index Number	Year	Index Number
1840	33	1867	63	1894	67
1841	34	1868	65	1895	68
1842	33	1869	66	1896	69
1843	33	1870	67	1897	69
1844	32	1871	68	1898	69
1845	33	1872	69	1899	70
1846	34	1873	69	1900	73
1847	34	1874	67	1901	74
1848	35	1875	67	1902	77
1849	36	1876	64	1903	80
1850	35	1877	61	1904	80
1851	34	1878	60	1905	82
1852	35	1879	59	1906	85
1853	35	1880	60	1907	89
1854	37	1881	62	1908	89
1855	38	1882	63	1909	90
1856	39	1883	64	1910	93
1857	40	1884	64	1911	95
1858	39	1885	64	1912	97
1859	39	1886	64	1913	100
1860	39	1887	67	1914	102
1861	40	1888	67	1915	103
1862	41	1889	68	1916	111
1863	44	1890	69	1917	128
1864	50	1891	69	1918	162
1865	58	1892	69	1919	*184
1866	61	1893	69	1920	†234

* This index number applies to the spring of 1919. Wage rates advanced during the year.

† This index number applies to the summer of 1920, and probably represents the wage peak of the year.

Figures during the Civil War period represent a currency basis.

ther comment may seem unnecessary. However, there are two parts to the story—and both are not always emphasized. A reduction of labor costs involves not only a reduction of wage scales for many labor groups, but also a reduction in the number of workers in relation to output. This matter of increased efficiency of labor is too important to be slighted.

Money wages in 1920 were three and a half times higher than in 1870, seven times higher than in 1840 and over twice as high as in 1914, the year that marked the beginning of the war.[14] Under the circumstances it is not strange that thought of reducing production costs should center so often about reduction of wage scales.

That cuts in wage rates have been and will be made is indisputable. It is improbable, however, that the level of money wages will recede to the 1913

[14] See table and chart included in this section.

level within the foreseeable future. The teachings of historical fact are not wholly futile. The trend of money wages over a period of eighty-one years is shown in the table below, prepared by the Bureau of Labor Statistics.

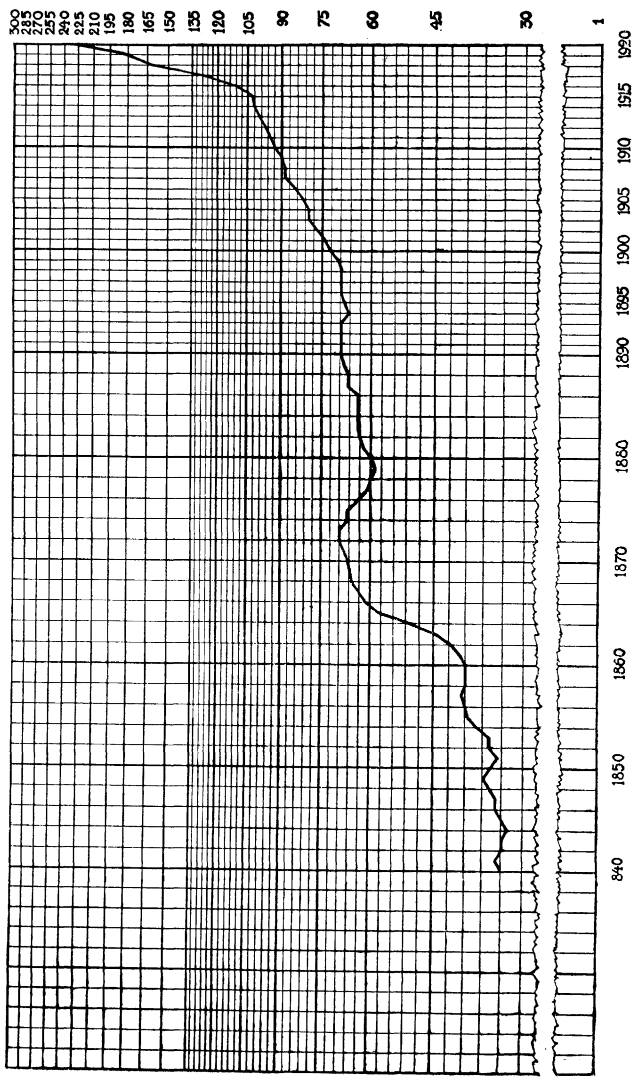
The following chart tells the story of the trend of money wages even more clearly.

The curve of the index number has risen steadily since 1840 with only one major decline, from 1873–79, and one minor recession, during the years 1893–94,[15] until the year 1915, when the curve begins to leap upward.[16]

[15] The depression of 1907 did not cause a wage decline; it merely stayed the rise in wage rates.

[16] It is probably unnecessary to elaborate the trend of *real* wages in this article. Workers and labor unions accepted the "principle" that wages should be adjusted to living costs when prices were rising, but now that the cost of living

Wage Curve 1840-1920.



ON THE RIGHT ARE INDEX NUMBERS OF WAGES PER HOUR—1913 = 100. BUREAU OF LABOR STATISTICS DATA.

After the Civil War wage rates did not slump. They rose each year from 1860 until 1872, in all from an index number 40 to the index number 69. It is not submitted that what happened after the Civil War will happen now. What is sure is that there will be a recession in wage rates, just as there were declines following the depressions of '73 and '93. Wage reductions now proposed sound drastic, but they can hardly be called "liquidation of labor." Cuts of twenty or thirty per cent are relatively small as compared with the recent increase in money wages.

Both history and recent proposals give basis for the statement that a reduction in labor costs is more likely to come through increased labor efficiency than through reductions in wage scales. The big problem of labor management is, therefore, that of reducing the number of workers in relation to output and of stimulating an increased interest among workers in production and workmanship by whatever means may be found practicable. Real business management will center its attention on the problem of liquidating labor *costs*. This is partly a labor management problem and partly a problem of using efficient forms of capital equipment and of eliminating waste. These are, of course, not the only measures that must be taken to reduce labor costs, but they are suggestive—particularly suggestive of the need of efficient management.

is declining, they seem to be rather generally opposed to downward revision of money wages. Talk about cost of living should not becloud such matters as the capacity of the industry to pay, the relation of labor costs to total costs and the efficiency of labor. As a matter of historical fact it may be noted that the curve of money wages has risen steadily, but the price level has moved up and down. In general, the level of prices rose during the period 1850 to 1873, declined thereafter until 1896, rose at the rate of about 3 per cent a year until 1914 and from October, 1915 to May, 1920 rose skyward as shown by the index number table of wholesale prices printed in a previous section of this article. When prices rise, money wages lag; when prices fall, money wages also lag. If money wages do not fall proportionately with the drop in prices, workers will, of course, enjoy larger real wages. Through the period 1840–1920 it seems that real wages have been rising. Whether they were high enough in 1914, say, is a debated question.

THE ELIMINATION OF INDUSTRIAL WASTE

The reduction of costs by eliminating or reducing waste is a problem commanding technical knowledge. It also calls for the courageous adoption of improved methods or equipment, or both. Competent counsel is frequently needed, and if competent, is itself a low cost item. Scientific method is nothing more than the close application of that uncommon quality known as common sense.

Getting rid of waste seems to be an activity particularly within the bailiwick of engineers. Salient points in the report of the Committee on the Elimination of Waste to the American Engineering Council have received newspaper publicity, but are set forth in Mr. Wallace's article[17] in a fashion so authoritative as to merit the thoughtful attention of business managers.

If a particularly horrible example of industrial waste is needed to shock the managers of business enterprises, it is found in the close study by Dr. Mitchell, entitled, "Waste in the Manufacture of Men's and Boys' Ready-to-Wear Clothing."

THE APPLICATION OF STANDARDS IN MEASURING THE CREDIT RISK

Engineering counsel is often an aid in the reduction of costs, but business men can employ self-help by applying sound standards in measuring credit risks.

[17] "Industrial Waste."

Improper extension of credit is a costly procedure and Mr. Tregoe has grounds for preaching anew the "three C's" of credit.[18]

After the recent "involvements" of business concerns, warning about credit standards may properly come from another quarter—from a banker whose pet interest is the supervision of the credit department of one of the largest banks in the country.[19] While his engagements did not permit him to write an article, he dictated a memorandum which the editor is taking the liberty of quoting.

OLD WINE IN NEW GLASSES

Quick assets in a balance sheet consist primarily of cash, accounts and bills receivable, merchandise and readily marketable securities. We have discovered that these items at times are not quick assets; that cash is sometimes money deposited abroad which cannot be lifted because of an exchange barrier; that accounts are not met at maturity, but are renewed indefinitely, and that merchandise is a glut on the market. We have had the reasons for Cannon's famous two-for-one theory emphasized; assets always shrink while debts rarely do. Therefore a necessary adjunct in considering a risk at this time is a complete, detailed statement, not only of assets and liabilities, but also as to contingent debt, contract debt, commitments and guaranties,—plus a complete detailed operating statement, preferably over a period of years. We discover that businesses are keyed upon a certain volume of sales to carry the overhead. If sales collapse suddenly, it takes months to adjust the overhead to the new scale; meanwhile, operating expenses eat up existing capital to the point of financial exhaustion.

We recognize the dominating importance of a budget system of operation. We have observed that a concern operating on a good budget system has not allowed the buying end of the business to run wild. Such a system checks speculation in merchandise. Merchants have had their optimistic over-purchases vindicated so long and so often that many of them have come to regard a rising tide of prices as a regular and natural occurrence.

Unbalanced inventory, we discover, has many evils in its train. The question is not so much whether a business is stable or luxurious, but how much of an assembled proposition the output is. Does the concern manufacture a diversified line of commodities or only a few articles? It would not take long to get the overhead down, as a rule, with a company manufacturing a few standard articles—for instance, Ford.

Abnormal war-time profits created abnormal taxes and led to extravagant dividend disbursements and salary payments, with the result that in lean periods the reserve fat to fight business depression has been eaten up and over-worked working capital succumbs to the demands upon it. The thought suggests itself, therefore, that the slow, plodding, consistently earning business is sometimes a better risk,—remembering the old fable of the hare and the tortoise.

Acceptance credits should be handled as carefully as discounts and, likewise, the usual principles of credit should be applied to foreign exchange transactions in which an element of credit is involved.

The wisdom of selecting a risk in which the stockholders are resourceful, energetic men of some outside means is still pertinent. Occasionally a business becomes anemic and we discover that there is no vitality in the management, which is controlled by estates or people living remote from the company's scene of operation.

The new freight rates may make zoning of business imperative and may even shut a concern out of a market which was heretofore a prime user of its product.

Likewise, tariff readjustment may surround a prospective credit with uncertainty. A business solely dependent upon the caprice of politicians or the swings of foreign exchange for its profits is a hazardous line. We have discovered, also, that the bill-of-lading draft is at times a slow collateral loan with collateral remote from one's office,

[18] "Standards for Granting Credit."

[19] Mr. John F. Craddock, Vice-president, Continental and Commercial National Bank of Chicago.

expensive to handle and frequently unguarded, with no assurances that the consignee will accept and pay the document. Various ramifications of this one question have loaded the docks abroad and the railroad warehouses of this country.

Rising prices are not essential to good business but, on the contrary, are sometimes an incentive to speculation or carelessness. Lowering prices are not an unmixed evil if they necessitate greater care in management.

Taxes As a Hindrance to Business

Taxes have been so substantial and their application so uncertain that they have retarded development toward the point of "normalcy"—whatever and wherever that point may be. The Administration has taken cognizance of the consequences of such taxation to business already struggling against debt and depression. There was a great gap, however, between cognizance by the Administration and action by Congress. In the latter's lexicon, "dispatch" seemed to be given a meaning far removed from its usual significance. Precedence and precision of action wandered into the field of political desire and expediency. Tariff adjustment was placed before tax adjustment, and revenues were considered before the costs of government were determined. Thus politics interfered with business and business judgment; management and genius became attributes of small moment. When the government flounders, business can only grope.

The costs of government must not penalize business efficiency and business must be made productive enough to bear war burdens of taxation.[20] This is about all that can be said with certainty. The delay in tax adjustment seems at least to have given time for sufficient discussion of the various forms of sales taxes—and their apparent rejection. In the end, the tax bill approved by President Harding and modified by the Republican caucus seems likely to be passed,—possibly after further vicissitudes. Taxes, it is hoped and half planned, are to be made less burdensome on business,—which will ultimately be free to draw on the capital it creates for its own development. Whether deficiency appropriations will later be passed remains to be seen. But reported cuts in appropriations, amounting to half a billion dollars, gives present encouragement,—more than projected economies that may result from the new budget system. Funding of foreign debts may be worked out satisfactorily and may help later on. Greater certainty in the tax situation is now forseeable, but cause for unrestrained rejoicing must still be sought in newspaper bulletins.

The Federal Reserve System—Its Admendment and Administration

When adversity comes, Americans seem always to turn to new machinery for salvation. Foreign trade financing corporations or coöperative marketing schemes are present illustrations. People also like to tinker with existing machinery, particularly with the Federal Reserve System. Even business men seem to want nickle-in-the-slot government, which will save them. Automaticity is a choice mechanical ideal, but always in the end human beings must operate.

Such changes in the Federal Reserve Act as are found necessary, after careful analysis, to further the real purposes of the system, should be enacted. These are very few, as Mr. Dodge points out.[21] The McFadden bill (H. R. 4906) abolishing the office of the

[20] Cf. the article by Dr. King in this volume, "Taxation That Will Not Impair Business."

[21] "Changing the Fundamental Structure of the Federal Reserve System."

Comptroller of the Currency has received the endorsement of bankers, and deservedly.

Of vastly more importance than amendment of the Federal Reserve Act is its administration to accomplish its fundamental purposes. The strict commercial character of eligible paper and the strict commercial character of the System must not be impaired. This is true whether pressure comes from those who would end the farmer's credit struggle through the System's capacity for expending credits, or whether the pressure comes from some other group who think that somehow the government, and especially the Reserve System, can make everybody rich.

The Federal Reserve System, to operate properly, must be unhampered by politics—unhampered even by "hang-over" political doctrines. The System can work with government without being dominated by government.

Proper administration means the adjustment of rediscount rates in the light of district conditions. It means the formulation of all district policies according to the factual situation in each district.

The selection of the best possible men to control the System, nationally and *locally*, is imperative. They should be selected regardless of friendship, favors received or honors to be distributed. No administration is better than the men in charge of it.

Public opinion should be alert to the need of eliminating any policy of arbitrary control of the System, all political interference or dead-level uniformity between districts. Above all, the idea should be sloughed off that the Reserve Banks are *government banks* which possess an economic panacea to be applied through political manipulation.

THE MIDDLE WEST—THE ECONOMIC BACKBONE OF THE NATION

Production at minimum cost involves two factors particularly. These are location and personnel. If a business is not properly located, it is under a handicap which will be reflected in decreased profits. If the personnel of any concern is not efficient, costs will be higher than they should be and profits will be correspondingly curtailed. In considering the revival of American business, labor costs are of immediate concern, but the problem of location, or perhaps relocation, of industry cannot be overlooked.

Practical experience has taught that manufacturing industries have had their locations determined by raw materials, labor, the market, power or fuel, capital and transportation. These factors have operated in various degrees at various times and with respect to various industries. Close examination of the part they now play seems to point conclusively to the present and future importance of nearness to market and accessibility of raw materials.[22] The marked advantages of the Middle West with respect to these two factors, as well as other determinants of industrial location, give concrete reason for the generalization so often made that the Middle West is the economic backbone of the nation. This statement may not be welcomed in some quarters, but it has been made often enough to be comprehended, especially as the actual trend of industrial relocation has been toward the Middle West.

It is doubtless true that extensive changes in the structure of railroad rates might be such as to speed up an already marked process of relocating manufacturing establishments. Certainly, if the vast domestic market is

[22] "Economic Factors in the Location of Manufacturing Industries."

not to be overlooked, in considering the hoped-for revival of American business, this question of the location or relocation of manufactures must be given serious consideration. Economies in production will have small regard for sentiment or section in the days that are ahead.

Key Industries in the Revival of American Business

Part two of this volume has been given over to a number of factors, particularly cost factors, affecting any kind of business. It is helpful in getting at "the meaning and manner of business revival" to take a new approach—the usual one of studying conditions in key industries. The railroads, farming, the steel business, the automotive industry and building construction have clear title to the claim of being key industries. This claim is evidenced by the "essential" character of the industries, by the magnitude of their operations and by the fact that revival in almost any one of them would help to revive the business of the others. It is common knowledge that the important domestic industries are interdependent. Those business pursuits, like cotton growing, which depend rather on foreign than on domestic markets, are less closely integrated with the domestic business structure, but the difference is only one of degree. Though the list of key industries analyzed in Part III might be more comprehensive, there is a deal of common sense in appraising those listed, if one would gauge the *when* and *how* of business revival. A plea of "confession and avoidance" could be entered against the charge that the list is not sufficiently comprehensive.

Railroad Recovery and Business Revival

The capitalization of the railroad industry, the number of its employes, its purchasing power and the economic importance of its service make it the industry to which the country habitually turns in seeking first signs of business revival. It seems likely to indicate a measure of improvement in the near future.

The financial plight of the railroads has been detailed in all public prints. It is nevertheless agreeable to have some one who is a detached student of the "railroad problem" say bluntly that the unbusinesslike methods of the United States Railroad Administration have been chiefly responsible for the financial position in which the railroads find themselves.[23] Professor Van Metre is perhaps daring in suggesting government subvention—that the "government should give to the carriers, either as a subsidy or as a long time loan without interest, a sum equivalent, as nearly as possible, to the surplus which the Railroad Administration might have created out of earnings, had adequate rates been established." The argument is logical: If the Railroad Administration kept rates down during a period of rising prices and mounting expenses so that a surplus could not be created against the time of depression, then the Federal Government should undo its violation of a sound business principle by making restitution.

It is reported by the newspapers that at a dinner given by President Harding to western bankers, the trend of feeling took some such turn, though not so explicit or sweeping. Certain it is that the Federal Government since that dinner—whether two and two make four in this case is purely a matter of conjecture—has taken steps to speed up the settlement of railroad claims against the government. President Harding's message to Congress on

[23] "The Railroad Predicament: How It Arose and How to Get Out of It."

July 26 pointed the way. The plan proposed would put the railroads in funds to the amount of some $500,000,000, while their indebtedness to the government would be funded. This should be a start toward the recovery of the railroads and the revival of American business. The government seems to have got the railroads into a financial "mess" and it must lead in getting them out, if private ownership and operation are the public wish.

The "railroad problem" has more than a fiscal aspect; labor and operating problems are included. More labor disturbances—whoever might be responsible—would be disastrous. Adequate and effective service will be called for when business revival does come. The public has a right to that kind of service. Labor and operating problems call for unusually able management. The public has a right to expect such management.

It is devoutly to be hoped that the two headed monster constituting the railroad problem, impaired finances, and labor adjustments, will have lost its terror soon after this volume comes from press.

PROSPECTS OF THE GRAIN GROWER

It is alleged, with truth, that the farmer was the first to feel the effects of the recent contraction of business. There is probably no gainsaying the fact that the grower of grain was reluctant to face the inevitable, and aggravated his financial difficulties by holding his product instead of releasing it for the market before the full effect of the price slump was felt. It is doubtless true that some farmers "went it pretty heavy" on expenditures for automobiles, some bought too heavily of consumer's goods, some went in for "blue sky," some bought unnecessary new equipment and some were caught in land deals. Another point in the indictment might be that the grain growers, or rather their voluble representatives, seemed to regard the Federal Government as able to make everyone rich, or at least able to put a price peg in a grain market subject to the play of world-wide supply and demand forces, so that the farmer should not suffer loss. A so-called "Agrarian Bloc" is said to be working in Congress now for what they think the farmers need.

On the other side of the ledger, however, should be chalked up the fact that even if every farmer had sold all his grain when the pressure of the Federal Reserve System bore on him to liquidate, he could not have done so. Many farmers incurred expenses and obligations at a high price level and would have sold at a lower and lowering scale of prices. A margin of debt would have been carried by the country banks in any case. Large banks with hundreds of country bank correspondents realized the situation and borrowed heavily at the "Fed." The farmer has only a single turnover a year. His position is different from the merchant's or manufacturer's. Banks at the centers *had* to carry the farmer. A policy of deflation was necessary, but as was not always realized, it was necessary also to apply it considerately in the full realization of the farmer's peculiar position. The banker's hope is that the farmer will "clean up" obligations out of this year's harvest. It is a hope that promises to be partly realized.

The ultimate position of the grain grower is undoubtedly sound.[24] He is an indispensable member of society. Food is a primary need. It is his immediate prospect that is perhaps less reassuring. The real situation cannot

[24] See "The Recovery of the Grain Farmer" in this volume.

be disclosed until the spread between the price of farm products and the price level has narrowed.

What will come of schemes for coöperative marketing or other methods for controlling the marketing of grains is as yet problematic. The War Finance Corporation plan for handling grain exports is still in process. The farmer's program should be followed intelligently and sympathetically, but with an eye open for any bad economics that may develop. He is certainly entitled to a reasonable return. No thoughtful student of economics would deny him profits. The agrarian movement in Congress commands interest. But if some of the members of Congress—especially the over-abundant lawyers—will not learn that politics cannot successfully defy economic forces, they should be prevented, by an alert and effective public opinion, from doing too much harm.

Slow Recovery of the Cotton Belt

The known facts about the cotton situation, as noted in Mr. Shelton's article[25] and in field studies, do not make a pretty story. The bottom fell out of the cotton market. Buyers were aware of growers' financial extremities and induced competition among sellers that was often ruinous. In general, however, growers were not particularly disposed to sell, and the return was less the longer they waited. If sales were made, they regularly netted amounts less than cost of production. Expenses on the 1920–21 crop had been incurred on a high price level. Funds had been secured largely from banks and cotton factors, as usual, to cover these expenses. Collateral given was often 1919–20 cotton which later could not be marketed at 50 per cent of the face of the loans. Credit was frozen. Planters' surpluses had been spent on consumer's goods or real estate. Cotton growers asked new extensions of credit. Local bank loans were necessarily restricted. Banks in the centers practically became cotton planters. Commercial loans became investment loans. New York and Boston Reserve Banks rediscounted for the Reserve Banks in Dallas and Atlanta. Every possible angle of financing had to be tried and new credits made available—under supervision. Somehow cotton growers and cotton banks had to be salvaged. And the end is not yet!

The cotton growers tried self-help in the way of restricting acreage, fertilizer and supplies. The 1921–22 crop will be smaller than that of 1920–21. Cotton growers are familiar with the parodox of value; price varies inversely with supply. Thus price may be raised to cover costs that do not decline proportionately. With curtailed output and orderly marketing of the 1921–22 crop, it was felt that obligations could be liquidated—gradually. Moreover, economy, voluntary or forced, had to become the order of the day. It is to be hoped that the worst will be over this year, and it may be if the War Finance Corporation plans work extensively.

One form of self-help that is new in certain sections, for example the Delta country, is crop diversification. In 1920 the planter anticipated a price for his cotton which would make the purchases of feed-stuffs for making the 1921–22 crop easier and cheaper to buy than to raise. With the market decline, banks had to purchase at least seventy-five per cent of the 1921 feed. In 1922 the planter will have raised seventy-five per cent of his own feed. But this was due to financial pressure and may not be a permanent improvement.

Cotton is an American product that requires a foreign outlet. No one dis-

[25] "The Way Out for Cotton Growers."

putes that fact. If Mr. Shelton's estimate is correct that "the decrease in the world's production will be 7,500,000 bales from that of 1920," and if his belief is well founded that world "consumption should increase materially and should probably be equal to the pre-war normal for the calendar year 1922," prospect is more alluring than retrospect.

Whatever time must elapse before world recovery, the cotton grower must be financed But this will not be accomplished by the magic of new corporations. The funds of the larger banks and local economy will continue as prime factors in the situation. Moreover, if all creditors swoop down simultaneously this fall the situation will not be greatly bettered.

Though cotton growing is a key industry and the immediate future may be brighter than is sometimes felt, one prediction seems safe: The cotton grower is not likely to lead the procession toward business revival. Rather he will follow.

DARK SPOTS IN THE AUTOMOTIVE INDUSTRY

The size of the automotive industry makes it one of the key industries to consider in studying the question of business revival. Moreover, everyone knows that the industry has been hard hit by the recent depression, in spite of the much advertised but short lived "spring bulge." Some people have even wondered how so many could afford to "sport" cars, and whether the trade was "plunging" on sales. They also have wondered if consolidations, reorganizations, failures and final control of the industry by a limited number of efficient concerns would not be necessary in the process of stabilizing or reviving the motor car business. What some have felt, Mr. Pleasonton has stated publicly and with an array of supporting evidence.[26]

It is always the part of wisdom to learn the very worst about any situation; one can then lay plans for the upbuilding of a business on sound premises, on facts rather than delusions. There are dark spots, even black, in the automobile situation and these should be known to producers, bankers and consumers. Irrational enthusiasm will not cure over-production, modify the design of cars, reduce operating costs, assure a regular payment of dividends, or cause such critical study of the industry as seems necessary if it is to be operated according to sound economic principles.

If Mr. Pleasonton's conclusion as to the prospects of the automotive industry is sound, too great reliance should not be placed on that key industry in hoping for the speedy, if not immediate, revival of American business.

BANKING AND BUILDING

Nostrums are cheaper than building. Facts are harder to get than are opinions and profanity. And the summer is passing. The immediate future of the building industry might be brighter. So complex a situation cannot be straightened out in a day or week. A statement of its complexity is refreshing.

The facts in Mr. Welton's article[27] deserve close study; likewise his criticism of projects to make the Federal Reserve Act a cure-all. It is not too strong a statement to say that he speaks with authority, having been intimately associated with the movement resulting in the passage of the Federal Reserve Act and a close student of the System since it began operation.

From a long run view it is interesting to note that the opinions of Mr. Welton

[26] "The Automotive Industry: A Study of the Facts of Automobile Production and Consumption in the United States."

[27] "The Building Complex."

and Professor Friday[28] coincide with respect to probable interest rates on capital for building, namely, that interest rates will presently be within reach of the home builder. Interest rates are determined in a competitive market and it is as absurd to allege discrimination against capital for building as to confuse commercial and investment banking. But human nature, particularly the instinct of rage, demands a human target. Lately, baiting the bankers has become an official if not popular sport.

IRON AND STEEL SITUATION UNSETTLED

It was hoped that a steel man could be induced to read that "barometer" of business conditions for Academy members. To the less trained observer it looks as if low pressure areas are still to be expected. *Unsettled* seems to be the best term to use in appraising the steel situation.

The expansion of the steel trade is suggested by a few statistics. According to figures prepared by the American Iron and Steel Institute, the output of steel ingots and castings in the United States for 1920 was 42,132,934 gross tons, against 34,671,232 gross tons for 1919 and 23,613,030 for 1914. The production of all kinds of finished rolled iron and steel in 1920 was 32,347,863 gross tons, a figure exceeded only twice, in 1916 and 1917. This output is about a fifty per cent increase over 1910 production and an increase of 437 per cent over the 1890 total of 6,022,875 gross tons.

The slump this year in output is world-wide. The production of American plants had fallen before July first to amounts variously estimated at twenty to thirty per cent of capacity, with the output of independents less than that of the Steel Corporation.[29] The latter had booked tonnage which the independents lacked, but these unfilled orders have been dropping for twelve consecutive months.[30] The

TABLE VII. EXTENT OF LIQUIDATION IN FINISHED STEEL PRODUCTS

	Cents per Pound				1917 Peak Exceeded 10-year Pre-War by	July 12, 1921 Exceeds 10-year Pre-War by	Extent of Liquidation from 1917 peak
	10 year Pre-War	Peak July, 1917	Industrial Board March, 1919	July 12, 1921			
Bars	1.42	4.50	2.35	1.90	217%	34%	84-1/2%
Plates	1.488	9.00	2.65	1.90	505%	28%	94-1/2%
Beams	1.50	4.50	2.45	2.00	200%	33%	83%
Rails	1.34	1.79*	2.10	2.10	34%	57%	
Sheets	2.226	8.50	4.35	3.50	282%	57%	80%
Wire	1.62	3.95	3.00	2.50	144%	54%	62%
Pipe	2.194	5.10	4.25	3.55	132%	71%	46-1/2%
Composite	1.684	5.334	3.021	2.493	217%	48%	82%

The Iron Age, July 14, 1921.

* Reached 2.545¢, which was maintained all through 1918; again in 1920.

[28] "The Probable Trend of Interest Rates."

[29] *Wall Street Journal* of June 22, 1921.

[30] Unfilled orders of United States Steel were 11,111,468 tons on July 21, 1920, while on July 31, 1921 they amounted to 4,830,324 tons. The decrease for July was the smallest reported during the last year.

world output of steel in 1913 was about 65,000,000 tons; June production has been at the rate of only some thirty-seven per cent of that figure.[29] The reasons for this slump, though interesting, need not be detailed; the present and future position of the industry are chiefly in point in considering the revival of American business.

Following the slump in business came efforts at revival through price cuts and wage decreases. Independents made the first move.[31] The table on page xxvi shows the extent of liquidation in finished steel products which "represent approximately eighty-five per cent of the annual output of steel in the United States"[32]:

Using as a basis the prices formally announced within the last ten days, the advances over the ten-year pre-war average are as follows in representative products[33]:

	Per Cent
Billets	33
Merchant bars	34
Plates	34
Shapes	33
Black sheets	57
Galvanized sheets	35
Wire nails	52

A wage reduction was announced by the Bethlehem Steel Corporation on July 1, to be effective July 16 at its Steelton (Pa.) plant. This cut amounted to fifteen per cent for all employes except salaried men and ten per cent for them. The Company also announced a reduction of eight to ten per cent in the rents of all houses owned by it. The United States Steel Corporation announced the abrogation, as of July 16, of the "basic" or "overtime" day put into effect during the war.[34] By August 19 further cuts in prices and wages had been noted by the press.

Cuts in the prices of steel apparently caused no great increase in business. *The Iron Age* stated that "less rather than more buying has followed the formal posting of the new steel price lists and steel operations have not improved. Buyers do not question that prices are generally below cost, but they need little steel and wait the effect of labor and freight adjustments."[35]

Contemplated action by the Federal Government in releasing funds to the railroads would seem to be a favorable factor for the steel business, but the building situation is none too hopeful as an immediate prospect. Though much of this appraisal may be ancient history by the time this volume comes from press, the prospects of the steel industry seem unsettled, in spite of price and wage adjustments already made.

SUMMARY OF THE VOLUME

This volume develops its own summary. Parts I and II unfold a thesis regarding the way business revival will be worked out. Part III contains a warning.

It is not the editor's fault that such a symposium should summarize the business outlook so significantly. The most carefully prepared outline revamps itself till galley is approved. A

[29] *Wall Street Journal* of June 22, 1921.

[31] The Bethlehem Steel Corporation announced a reduction to be effective July 5. The United States Steel Corporation on July 6 announced reductions to be made by its subsidiaries.

[32] *The Iron Age*, July 14, 1921, p. 93.

[33] *Ibid.*, p. 90.

[34] *The Chronicle*, July 9, 1921. An announcement by Elbert H. Gary, on July 6.

[35] Unofficial price cuts for certain products of the United States Steel Companies were reported. The United States Steel corporation announced another adjustment in the wages of its employes, the third to be put into effect since the decline in steel prices began. The reduction to go into effect August 29 will amount to seven cents an hour for unskilled labor bringing the wage rate down to thirty cents an hour or to the level of May 1, 1917.

volume is a growing, changing thing. The thesis as to business revival is double-barreled: That the domestic market plus a more normal foreign trade offers the field for business revival, and that responsibility for such revival can be placed chiefly and squarely with business managers, particularly in respect to reducing costs.

The warning contained in Part III is implicit rather than explicit. The outlook for key industries is still somewhat spotted. The close interrelation of these industries makes necessary more striking evidence of recovery in all before a properly defined revival of business can confidently be predicted. Time, straight thinking, courage, self-help and the restoration of a moral code under which high living, speculative gain and the breaking of promises are frowned down upon—all these must be coupled with action in alignment with the thesis of this volume regarding the manner of business revival.

The warning runs deeper still. The great American fallacy must be discarded—*Deus ex machina*, and the machine usually political. Salvation will not be wrought by machinery alone, certainly not by governmental machinery in business or for the supposed benefit of business. Machinery does not determine human behavior; it does not nullify nature's controls.

It is the privilege of the editor of this volume to make grateful acknowledgment to the contributors—who fashioned it.

C. H. CRENNAN.